**NOTICE OF AMENDMENT**

**CERTIFIED - RETURN RECEIPT REQUESTED**

June 20, 2000

CPF No. 420001002M

Mr. Walter Ferguson
Vice President of Operations
Reliant Energy Gas Transmission Company
Room 760
1111 Louisiana
Houston, Texas 77002

Dear Mr. Ferguson:

On September 13-17, 1999, representatives from the Southwest, Southern and Central Regions, Office of Pipeline Safety (OPS) met with several members of Reliant Energy Gas Transmission Company staff in your Shreveport, Louisiana offices. This meeting was pursuant to Chapter 601 of Title 49 United States Code and was conducted to review your manual of written procedures for conducting operations and maintenance activities and for emergency response. The multi-regional team of OPS inspectors performed an intense review of your procedural manual for operations, maintenance and emergencies.

As a result of the review of this procedural manual, the requirements for which are set forth in Title 49, Code of Federal Regulations (49 CFR), Parts 191, and 192, Transportation of Natural and Other Gas By Pipeline, several existing procedures were deemed inadequate.

**1. §191.5 Telephonic notice of certain incidents.**
**(b) Each notice required by paragraph (a) of this section shall be made by telephone to 800-424-8802 (in Washington, D.C., 267-2675) and shall include the following information:**
**(1) Names of operator and person making report and their telephone numbers.**
**(2) The location of the incident.**
**(3) The time of the incident.**
**(4) The number of fatalities and personal injuries, if any.**
**(5) All other significant facts that are known by the operator that are relevant to the cause of the incident or extent of the damages.**

The information, required by subparagraph (b), is not included in Procedure 104, Incident Reporting.

**2. §191.17 Transmission and gathering systems: Annual report.**
**(a) Except as provided in paragraph (b) of this section, each operator of a transmission or a gathering pipeline system shall submit an annual report for that system on Department of Transportation Form F RSPA 7100.2-1. This report must be submitted each year, not later than March 15, for the preceding calendar year.**

Several errors were found in Reliant's 1998 List of Trans. & Gath. Corrosion Leaks, which is used to prepare the Annual report. Some examples of the errors were: leaks due to internal corrosion were reported but Reliant does not have procedures to address this problem; that the number of leaks was over reported; and, critical data (type, location, cause, etc.) for some of the leaks on the report were not included when entering the leak data into the electronic database. As a consequence, we are concerned that the number of leaks reported in the Annual Report may be incorrect.

**3. §192.243 Nondestructive testing.**
**(a) Nondestructive testing of welds must be performed by any process, other than trepanning, that will clearly indicate defects that may affect the integrity of the weld.**
**(b) Nondestructive testing of welds must be performed:**
**(1) In accordance with written procedures; and**
**(2) By persons who have been trained and qualified in the established procedures and with the equipment employed in testing.**

In Procedure 96, Radiographer and Radiographic Procedure Qualification, paragraph B.2. it states 'two "T" holes...' when it should read 'No. 2 "T" hole' as found in API 1104.

**4. §192.273 General.**
**(b) Each joint must be made in accordance with written procedures that have been proved by test or experience to produce strong gas tight joints.**
**(c) Each joint must be inspected to insure compliance with this subpart.**

Reliant does not have procedures for the fusing of plastic pipe nor for the inspection of the joint.

**5. §192.285 Plastic pipe; qualifying persons to make joints.**
**(a) No person may make a plastic pipe joint unless that person has been qualified under the applicable joining procedure.**

Reliant does not have procedures for qualifying persons who make fusion joints on plastic pipe.

**6. §192.463 External corrosion control: Cathodic protection.**
**(a) Each cathodic protection system required by this subpart must provide a level of**

**cathodic protection that complies with one or more of the applicable criteria contained in Appendix D of this part. If none of these criteria is applicable, the cathodic protection system must provide a level of cathodic protection at least equal to that provided by compliance with one or more of these criteria.**

Procedure 105 (Book 4) Criteria does not include the criteria listed in paragraphs (2) and (3) of Appendix D. Also, in this procedure, Reliant reserved the right to use a criterion that was not included in the procedure. The criterion that Reliant chooses to use must be clearly delineated in the O&M.

**7. §192.465 External corrosion control: Monitoring.**
**(a) Each pipeline that is under cathodic protection must be tested at least once each calendar year, but with intervals not exceeding 15 months, to determine whether the cathodic protection meets the requirements of §192.463.**

Procedure 110, Annual Cath. Prot. Survey, requires that a report of the status of the cathodic protection system be prepared and submitted, but to whom the report should be submitted is not identified. Procedure 115, Cathodic Protection Data Evaluation, requires that the report be submitted to the Corrosion Specialist. Reliant must determine who the report should be submitted to and re-write the procedures so that they agree.

**8. §192.467 External corrosion control: Electrical isolation.**
**(c) Except for unprotected copper inserted in a ferrous pipe, each pipeline must be electrically isolated from metallic casings that are a part of the underground system. However, if isolation is not achieved because it is impractical, other measures must be taken to minimize corrosion of the pipeline inside the casing.**

In Reliant's Procedure 504, External Corrosion Control, and Procedure 415, Casing Insulation Testing, there is no upper limit identified for the casing-to-soil potential. Laboratory and field experience indicate that the upper potential of corroding carbon steel is in the 600 - 800 range of (negative) mV with respect to a Cu-$CuSO_4$ reference electrode. Reliant should review their data and assign an upper limit or range for the casing-to-soil potential.

**9. §192.467 External corrosion control: Electrical isolation.**
**(d) Inspection and electrical tests must be made to assure that electrical isolation is adequate.**

Reliant's Procedures 110, Annual Cathodic Protection Survey, 405, Pipe-to-Soil Potential Survey, and 410, Testing of Insulating Devices, are written in a confusing manner such that it is difficult to perform the test.

**10. §192.469 External corrosion control: Test stations.**
**Each pipeline under cathodic protection required by this subpart must have sufficient test stations or other contact points for electrical measurement to determine the adequacy of cathodic protection.**

Procedure 110 (Book 4), Survey at Compressor Stations, does not identify the annual survey test points where pipe-to-soil potentials should be measured to determine the adequacy of cathodic protection.

**11. §192.473 External corrosion control: Interference currents.**
**(a) Each operator whose pipeline system is subjected to stray currents shall have in effect a continuing program to minimize the detrimental effects of such currents.**

In Procedure 440 (Book 4), Interference, there is no requirement for Reliant to call the foreign company to perform interference testing at the time the rectifier is energized and placed in permanent service.

**12. §192.481 Atmospheric corrosion control: Monitoring.**
**After meeting the requirements of §192.479 (a) and (b), each operator shall, at intervals not exceeding 3 years for onshore pipeline and at least once each calendar year, but with intervals not exceeding 15 months, for offshore pipelines, reevaluate each pipeline that is exposed to the atmosphere and take remedial action whenever necessary to maintain protection against atmospheric corrosion.**

In Corrosion Control Procedure 500, Atmospheric Corrosion, page 1 of 2, Section B, Inspection Locations, Reliant lists six classes of locations to be scheduled for the three year inspection and repair, and to complete the repainting cycle. However, the current procedure does not list the exposed pipe sections to be monitored.

**13. §192.503 General requirements.**
**(a) No person may operate a new segment of pipeline, or return to service a segment of pipeline that has been relocated or replaced, until -**
**(1) It has been tested in accordance with this subpart and §192.619 to substantiate the maximum allowable operating pressure; and**
**(2) Each potentially hazardous leak has been located and eliminated.**
**(b) The test medium must be liquid, air, natural gas, or inert gas that is**
**(1) Compatible with the material of which the pipeline is constructed;**
**(2) Relatively free of sedimentary materials; and,**
**(3) Except for natural gas, nonflammable.**
**(c) Except as provided in §192.505(a), if air, natural gas, or inert gas is used as the test medium, the following maximum hoop stress limitations apply:**

| Maximum hoop stress allowed as percentage of SMYS | | |
|---|---|---|
| **Class location** | **Natural Gas** | **Air or inert gas** |
| **1** | **80** | **80** |
| **2** | **30** | **75** |
| **3** | **30** | **50** |
| **4** | **30** | **40** |

**(d) Each joint used to tie in a test segment of pipeline is excepted from the specific test requirements of this subpart, but each non-welded joint must be leak tested at not less than**

**its operating pressure.**

There are two findings: i.) Procedure 102, General, in paragraph (b)(1) does not have the requirements found in §192.503 (b)(1), (2) and (3) of the regulations. ii.) Table 47.1 of Procedure 102 has derating factors that are not the same as those found in the table listed in §192.503 (c) of the regulations. The procedure must agree with the regulations.

**14. §192.605 Procedural manual for operations, maintenance, and emergencies**
**Each operator shall include the following in its operating and maintenance plan:**
**(b) Maintenance and normal operations. The manual required by paragraph (a) of this section must include procedures for the following, if applicable, to provide safety during maintenance and operations.**
**(8) Periodically reviewing the work done by operator personnel to determine the effectiveness and adequacy of the procedures used in normal operation and maintenance and modifying the procedure when deficiencies are found.**

In Procedure102, General Procedure, there is no requirement to prepare and keep records to show that the manuals have been reviewed. The procedure must be changed such that records are prepared and kept to show that the manuals have been reviewed.

**15. §192.605 Procedural manual for operations, maintenance, and emergencies**
**(b) Maintenance and normal operations. The manual required by paragraph (a) of this section must include procedures for the following, if applicable, to provide safety during maintenance and operations.**
**(9) Taking adequate precautions in excavated trenches to protect personnel from the hazards of unsafe accumulations of vapor or gas, and making available when needed at the excavation, emergency rescue equipment, including a breathing apparatus and, a rescue harness and line.**

Procedure 114, Hazardous Atmosphere in Excavations, does not provide for the emergency rescue equipment required in the regulations. Reliant must change the procedure to comply with the regulations.

**16. §192.613 Continuing Surveillance.**
**(a) Each operator shall have a procedure for continuing surveillance of its facilities to determine and take appropriate action concerning changes in class location, failures, leakage history, corrosion, substantial changes in cathodic protection requirements, and other unusual operating and maintenance conditions.**
**(b) If a segment of pipeline is determined to be in unsatisfactory condition but no immediate hazard exists, the operator shall initiate a program to recondition or phase out the segment involved, or, if the segment cannot be reconditioned or phased out, reduce the maximum allowable operating pressure in accordance with §192.619 (a) and (b).**

As part of the inspection we reviewed the data that is required by §191.17 Transmission and gathering systems: Annual report. Operators are required to include in the report: leaks, miles of

line cathodically protected, not protected, etc. As part of our inspection we reviewed Reliant's 1998 List of Trans. & Gath. Corrosion Leaks which lists the number of leaks on Reliant's pipeline systems. From our review we learned several things which are of grave concern.

We are concerned that appropriate action, such as, a root cause analysis of the leaks, is not performed as required by §192.613(a) on Reliant's systems. An operator must take appropriate action since it may yield insights as to why the leaks are occurring and how to prevent them. Reliant must perform continuing surveillance concerning the leakage history data that was used to prepare the Annual Reports for the years 1992-1999.

There are two additional findings in Procedure 202, Section A.2.

i.) The next to last sentence says 'If a hazard exists and repairs cannot be made immediately the pressure will be lowered to a safe level until repairs can be made'. This is incorrect in that the MAOP should be lowered as well as the pressure. The procedure must comply with the regulations.

ii.) In the last sentence of the procedure it states 'Any hazardous condition discovered must be reported immediately to the Region Director in accordance with Procedure No. 108'. Reliant reports that the intent of the procedure is to inform the Region Director and to have the discovered condition evaluated per Procedure 108 and to determine if it is a Safety Related Condition (SRC). The intent of the procedure is not clear.

**17. §192.619 Maximum allowable operating pressure: Steel or plastic pipelines.**
**(a) Except as provided in paragraph (c) of this section, no person may operate a segment of steel or plastic pipeline at a pressure that exceeds the lowest of the following:**
**(1) The design pressure of the weakest element in the segment, determined in accordance with subparts C and D of this part. However, for steel pipe in pipelines being converted under §192.14 or uprated under subpart K of this part, if any variable necessary to determine the design pressure under the design formula (§192.105) is unknown, one of the following pressures is to be used as design pressure:**
**(i) Eighty percent of the first test pressure that produces yield under section N5.0 of Appendix N of ASME B31.8, reduced by the appropriate factor in paragraph (a)(2)(ii) of this section; or**
**(ii) If the pipe is 12¾ inches (324 mm) or less in outside diameter and is not tested to yield under this paragraph, 200 p.s.i. (1379 kPa) gage.**
**(2) The pressure obtained by dividing the pressure to which the segment was tested after construction as follows:**
**(i) For plastic pipe in all locations, the test pressure is divided by a factor of 1.5.**
**(ii) For steel pipe operated at 100 p.s.i. (689 kPa) gage or more, the test pressure is divided by a factor determined in accordance with the following table:**

In Procedure 210, MAOP, the determination of the MAOP is based on federal regulations that were changed effective July, 1996. Procedure 210 has not been updated to reflect these changes. These omissions or inconsistencies are listed below.

1) The different methods of determining the MAOP in the table found in Procedure 210 do not include provisions for determining the MAOP as described in §192.619 (a)(1)(i) and (ii).

2) In paragraph (a)(2) the regulatory qualification that the line is operating at 100 psi gage or more is missing.

3) The title of the table in this procedure indicates that this is the method for the determination of the MAOP for pipe operating at more than 100 psig. The 100 psig restriction should be moved to paragraph (a)(2).

4) The restriction that the system must have over-pressure protective devices installed when determining the MAOP using subparagraphs (b) and (a)(4) is not in the included in Procedure 210. The requirement for over-pressure protective devices when determining the MAOP using subparagraphs (b) and (a)(4) must be added to the procedure.

5) When determining the MAOP of plastic pipe the reference to Note 3 is incorrect. The correct reference would be to Note 1.

**18. §192.629 Purging of pipelines.**
**(b) When a pipeline is being purged of gas by use of air, the air must be released into one end of the line in a moderately rapid and continuous flow. If air cannot be supplied in sufficient quantity to prevent the formation of a hazardous mixture of gas and air, a slug of inert gas must be released into the line before the air.**

Procedure 234, Purging with Natural Gas, does not have the regulatory requirement of adding a slug of inert gas if there is insufficient gas available to avoid the formation of a hazardous mixture of gas/air.

**19. §192.715 Transmission lines: Permanent field repair of welds. Each weld that is unacceptable under §192.241(c) must be repaired as follows:**
**(a) If it is feasible to take the segment of transmission line out of service, the weld must be repaired in accordance with the applicable requirements of §192.245.**
**(b) A weld may be repaired in accordance with §192.245 while the segment of transmission line is in service if: (1) The weld is not leaking: (2) The pressure in the segment is reduced so that it does not produce a stress that is more than 20 percent of the SMYS of the pipe; and (3) Grinding of the defective area can be limited so that at least 1/8-inch (3.2 millimeters) thickness in the pipe weld remains.**
**(c) A defective weld which cannot be repaired in accordance with paragraph (a) or (b) of this section must be repaired by installing a full encirclement welded split sleeve of appropriate design.**

The wording in O&M Procedure 226 and Construction Procedure100 is not clear whether repairs to welds can or cannot be made while the line is in service or how to make them. The procedures must be amended to comply with the requirements of the regulations.

As provided in 49 CFR §190.237, this notice serves to inform you that this office considers your procedures inadequate. Under 49 CFR §190.237, you have a right to submit written comments or request an informal hearing. You must submit written comments or a request for a hearing within 30 days after receipt of this notice. After reviewing the record, the Associate Administrator for Pipeline Safety will determine whether your plans or procedures are adequate. The criteria used in making this determination are outlined in 49 CFR §190.237. If you do not wish to contest this notice, please provide your revised procedures within 30 days of receipt of this notice.

We also have the following areas of concern, they are:

1). It is recommended that a reference list of the regulations requiring procedures be added to show where these procedures are found in Reliant's manuals - Book 1, 2, etc.

2). Procedure 104 Incident Reporting , Sections 3 -14 includes data for Kansas and Louisiana that are out of date. There are no data for the Tennessee and Mississippi. The procedure should be corrected.

3). In Procedure 104 Incident Reporting- Page 2 of 14-A.4.c, it states the following "obtained after a *report* has been submitted." This section does not define what report was submitted. We recommend that the procedure specify which report was submitted.

4). Reliant's Procedures 200, 202, 221, etc. describe conditions that may require submitting an SRC report. However, these procedures do not specifically identify when or if an SRC report should be prepared. It is recommended that a reference to Procedure 108, Identifying and Reporting Safety Related Conditions - A.3, be added to Procedures 200, 202, 221, etc. to ensure that an SRC report is submitted when conditions required it.

5). Procedure 205 - Change in Class Location, in section A, 4, b the reference to part 192 should be changed to Procedure 212

The above areas of concern were covered in the exit interview with Mr. T. Van de Kamp. We hope you will consider these areas of concern and take corrective action to further improve the safety of your pipeline.

Sincerely,

R. M. Seeley
Director

Attachments